

Siemens
EcoTech



SIMATIC S7-1500, digital output module DQ 16x230 V AC/1 A ST; TRIAC; 16 channels in groups of 2; 2 A per group; Substitute value: Front connector (screw terminals or push-in) to be ordered separately



Figure similar

General information	
Product type designation	DQ 16x230VAC/1A ST (Triac)
HW functional status	from FS01
Firmware version	V1.3.0
• FW update possible	Yes
Product function	
• I&M data	Yes; I&M0 to I&M3
• Isochronous mode	No
• Prioritized startup	Yes
Engineering with	
• STEP 7 TIA Portal configurable/integrated from version	V13 SP1 / -
• STEP 7 configurable/integrated from version	V5.5 SP3 / -
• PROFIBUS from GSD version/GSD revision	V1.0 / V5.1
• PROFINET from GSD version/GSD revision	V2.3 / -
Operating mode	
• DQ	Yes
• DQ with energy-saving function	No
• PWM	No
• Oversampling	No
• MSO	Yes
• Integrated operating cycle counter	Yes; FW V1.3.0 or higher
Output voltage	
Rated value (AC)	230 V; 120/230 V AC, 50/60 Hz
Power	
Power consumption from the backplane bus	1.2 W
Power loss	
Power loss, typ.	11.1 W
Digital outputs	
Type of digital output	Triac
Number of digital outputs	16
Current-sinking	Yes
Current-sourcing	Yes
Digital outputs, parameterizable	Yes
Short-circuit protection	No
• built-in fuse	6.3 A melting fuse, slow-blow

Size of motor starters according to NEMA, max.	4
Switching capacity of the outputs	
• with resistive load, max.	1 A
• on lamp load, max.	50 W
Output voltage	
• for signal "1", min.	L1 (-1.5 V) at maximum output current; L1 (-8.5 V) at minimum output current
Output current	
• for signal "1" rated value	1 A
• for signal "1" permissible range, min.	10 mA
• for signal "1" permissible range, max.	15 A; max. 1 AC cycle
• for signal "0" residual current, max.	2 mA
Output delay with resistive load	
• "0" to "1", max.	1 AC cycle
• "1" to "0", max.	1 AC cycle
Parallel switching of two outputs	
• for logic links	No
• for uprating	No
• for redundant control of a load	Yes
Switching frequency	
• with resistive load, max.	10 Hz
• with inductive load, max.	0.5 Hz
• on lamp load, max.	1 Hz
Total current of the outputs	
• Current per channel, max.	1 A; see additional description in the manual
• Current per group, max.	2 A; see additional description in the manual
• Current per module, max.	10 A; see additional description in the manual
Cable length	
• shielded, max.	1 000 m
• unshielded, max.	600 m
Interrupts/diagnostics/status information	
Diagnostics function	No
Substitute values connectable	Yes
Alarms	
• Diagnostic alarm	No
• Maintenance interrupt	Yes; maintenance alarm for switching cycle counter
Diagnoses	
• Monitoring the supply voltage	No
• Wire-break	No
• Short-circuit	No
Diagnostics indication LED	
• RUN LED	Yes; green LED
• ERROR LED	Yes; red LED
• Monitoring of the supply voltage (PWR-LED)	No
• Channel status display	Yes; green LED
• for channel diagnostics	No
• for module diagnostics	Yes; red LED
Potential separation	
Potential separation channels	
• between the channels	No
• between the channels, in groups of	2
• between the channels and backplane bus	Yes
Permissible potential difference	
between different circuits	250 V AC between the channels and the backplane bus; 500 V AC between the channels
Isolation	
Isolation tested with	3 100 V DC
Standards, approvals, certificates	
Siemens Eco Profile (SEP)	Siemens EcoTech
Suitable for safety functions	No

Ecological footprint			
• environmental product declaration		Yes	
Global warming potential			
— global warming potential, (total) [CO2 eq]		43.8 kg	
— global warming potential, (during production) [CO2 eq]		9.5 kg	
— global warming potential, (during operation) [CO2 eq]		34.5 kg	
— global warming potential, (after end of life cycle) [CO2 eq]		-0.231 kg	
Security			
signed firmware update		No	
data integrity		No	
Ambient conditions			
Ambient temperature during operation			
• horizontal installation, min.		-25 °C; from FS04	
• horizontal installation, max.		60 °C	
• vertical installation, min.		-25 °C; from FS04	
• vertical installation, max.		40 °C	
Dimensions			
Width		35 mm	
Height		147 mm	
Depth		129 mm	
Weights			
Weight, approx.		310 g	
Classifications			
		Version	Classification
eClass		14	27-24-22-04
eClass		12	27-24-22-04
eClass		9.1	27-24-22-04
eClass		9	27-24-22-04
eClass		8	27-24-22-04
eClass		7.1	27-24-22-04
eClass		6	27-24-22-04
ETIM		10	EC001419
ETIM		9	EC001419
ETIM		8	EC001419
ETIM		7	EC001419
IDEA		4	3566
UNSPSC		15	32-15-17-05
Approvals / Certificates			
General Product Approval			
 EG-Konf.  Miscellaneous Manufacturer Declaration  UL KC			
General Product Approval		Maritime application	
 RCM  UL FM  ABS  BUREAU VERITAS  DNV			
Maritime application			



[NK / Nippon Kaiji Kyokai](#)



[CCS \(China Classification Society\)](#)



Environment



Siemens
EcoTech



last modified:

6/8/2025